

Title (en)  
NEGATIVE-WORKING ULTRA THICK FILM PHOTORESIST

Title (de)  
NEGATIV WIRKENDER FOTOLACK MIT ULTRADICKER SCHICHT

Title (fr)  
RÉSINE PHOTOSENSIBLE NÉGATIVE POUR FILM ULTRA-ÉPAIS

Publication  
**EP 3769156 A1 20210127 (EN)**

Application  
**EP 19712966 A 20190320**

Priority  
• US 201862646946 P 20180323  
• EP 2019056911 W 20190320

Abstract (en)  
[origin: WO2019180058A1] The present invention relates to a negative working, aqueous base developable, photosensitive photoresist composition comprising: a) a polymer containing the four repeat units of structures (1), (2), (3), and (4), but no other types of repeat units; wherein v, x, y and z, respectively, represent the mole % of each repeat units of structures (1), (2), (3) and (4); b) a radical photo-initiator component, which is comprised of at least one radical photo initiator which is activated by a broad absorption of radiation from about 360 nm to about 440 nm; c) a crosslinker component which is either a mixture consisting of crosslinkers of structure (5), (6) and (7), or a single crosslinker of structure (8); d) a radical inhibitor component; e) an optional surfactant component; f) an optional dissolution promoter component; and g) a solvent. The invention also relates to the process of using this negative resist to produce lithographic images.

IPC 8 full level  
**G03F 7/027** (2006.01)

CPC (source: EP KR US)  
**C08F 216/06** (2013.01 - KR); **C08F 220/18** (2013.01 - KR); **C08F 220/281** (2020.02 - KR); **C08F 220/282** (2020.02 - KR);  
**C08F 220/301** (2020.02 - KR); **G03F 7/0045** (2013.01 - US); **G03F 7/027** (2013.01 - EP); **G03F 7/029** (2013.01 - US); **G03F 7/031** (2013.01 - US);  
**G03F 7/0384** (2013.01 - KR); **H01L 21/0274** (2013.01 - KR)

Citation (search report)  
See references of WO 2019180058A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2019180058 A1 20190926**; CN 111837075 A 20201027; CN 111837075 B 20240705; EP 3769156 A1 20210127; EP 3769156 B1 20240320;  
JP 2021518584 A 20210802; JP 7274496 B2 20230516; KR 102660770 B1 20240424; KR 20200136009 A 20201204;  
PT 3769156 T 20240625; SG 11202007193S A 20200828; TW 201940978 A 20191016; TW I818965 B 20231021; US 11698586 B2 20230711;  
US 2020393758 A1 20201217

DOCDB simple family (application)  
**EP 2019056911 W 20190320**; CN 201980017900 A 20190320; EP 19712966 A 20190320; JP 2020550871 A 20190320;  
KR 20207030643 A 20190320; PT 19712966 T 20190320; SG 11202007193S A 20190320; TW 108109926 A 20190322;  
US 201916966998 A 20190320